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A PILOT PROJECT TO DEVELOP REQUIREMENTS FOR ESTABLISHING AN INFORMATION SYSTEM FOR RESEARCH ACTIVITIES IN THE FIELD OF LIBRARIANSHIP AND INFORMATION SCIENCE. FINAL REPORT.

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THE LIBRARY RESEARCH CLEARINGHOUSE, ALREADY ESTABLISHED BY THE AMERICAN LIBRARY ASSOCIATION, WAS EXPANDED TO DEVELOP THE REQUIREMENTS OF A SYSTEM OF RETRIEVAL AND DISSEMINATION OF INFORMATION ABOUT RESEARCH IN PROGRESS IN LIBRARY SCIENCE. THE BASIC OBJECTIVES WERE--(1) TO CREATE THE CLEARINGHOUSES'S SERVICES IN ACQUISITION, STORAGE, RETRIEVAL, AND DISSEMINATION OF RESEARCH INFORMATION, (2) TO ASSIST IN THE DEVELOPMENT OF A THESAURUS OF TERMS FOR THE MATERIALS, AND (3) TO TEST AND EVALUATE THE EFFECTIVENESS OF THE CLEARINGHOUSE. INFORMATION ABOUT ON-GOING PROJECTS WAS GATHERED THROUGH A PREVIOUSLY ESTABLISHED NETWORK, INDEXED, ABSTRACTED, AND USED IN RESPONSE TO REQUESTS ABOUT CURRENT RESEARCH. REQUIREMENTS FOUND FOR AN INFORMATION SYSTEM OF THIS TYPE WERE--(1) DEVELOPMENT OF A STRONG ACQUISITIONS NETWORK, (2) DEVELOPMENT OF SEVERAL CRITERIA FOR INPUT, INCLUDING CONTENT, APPLICABILITY, AND DATE OF PUBLICATION, (3) DEVELOPMENT OF A THESAURUS, (4) ESTABLISHMENT OF A PUBLICATION, AND (5) DEVELOPMENT OF A DISSEMINATION NETWORK. OF THESE, THE DEVELOPMENT OF CRITERIA FOR INPUT FOR THE SYSTEM DETERMINES TO THE GREATEST EXTENT ITS EFFECTIVENESS. (AUTHOR/CM)

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August 23, 1967

U. S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

Office of Education
Bureau of Research

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American Library Associztion
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INTRODUCTION

The American Library Association's Office for Research and Development was established in March, 1965. One of the first directives to the staff was "to assemble and keep current, information on all research applicable to library service and librarianship, whether planned, in progress, or completed." In response, the ALA Library Research Clearinghouse was established. The purpose of the Clearinghouse was to gather information on research projects in librarianship and related fields that had been completed since 1962, that were in progress, and that were planned for the future.

It was assumed that the Clearinghouse would serve several purposes. It was a logical means by which to overcome wasteful duplication and excessive overlapping of effort in research and development. Secondly, by analyzing the information contained in the Clearinghouse, the profession would be able to anticipate future needs in the research and development areas, and plan for them accordingly. Furthermore, at any one time, the Clearinghouse provided, within limits, a state-of-the-art picture.

Prior to its establishment, several field trips were made to investigate Clearinghouses and information centers already in operation. One of the most fruitful visits was to the Science Information Exchange, and many of the procedures used in the Library Research Clearinghouse are based on those used at SIE. During the same period of investigation, a visit was made to the Division of Research Training and Dissemination, U.S. Office of Education, at which time ALA learned more of the details about the proposed Educational Research Information Center (ERIC). The goals of the

two proposed operations (the Library Research Clearinghouse and ERIC) seemed the same, i.e., to provide the cognizant groups with information on pertinent research. The interest of ALA in the ERIC system was immediately apparent, but since there was not a definite timetable for the establishment of ERIC, ALA decided to proceed with its plan for the Library Research Clearinghouse.

The U.S. Office of Education released its Request for Proposals for the ERIC system in February, 1966. ALA responded with a proposal to establish an ERIC Clearinghouse in Library Science. This proposal was not funded, but funds were provided to ALA for conducting A PILOT PROJECT TO DEVELOP REQUIREMENTS FOR ESTABLISHING AN INFORMATION SYSTEM FOR RESEARCH ACTIVITIES IN THE FIELD OF LIBRARIANSHIP AND INFORMATION SCIENCES. The duration of the project was six months: July 1, 1966 through December 31, 1966.

The goal of the project was the establishment of those requirements necessary for an information system for research activities in librarianship. These were to be determined after the attainment of the following objectives:

1. The establishment and operation of a Clearinghouse for research-in-progress information in library and library-related activities.

2. The provision of services in the Clearinghouse to acquire, process, store, retrieve and disseminate materials and information on library and library-related research-in-progress activities.

3. Assistance to the Educational Research Information Center (ERIC) in building an educational thesaurus.

4. The provision of means to test and evaluate the effectiveness of the operation of the Clearinghouse.

The pilot project was to be built on the ALA Library Research Clearinghouse. In order to fulfill the objectives, and thereby to develop requirements for such an information system, the Clearinghouse activities were to be intensified and expanded. It immediately was apparent, however, that six months was not a sufficient period of time in which to carry out the project. USOE indicated, therefore, that ALA could apply for an extension of the grant, as long as the request was only for time, and not for additional funds. Two requests for additional time were subsequently submitted and approved. The first extended the grant through March 31, 1967 and the second, through June 30, 1967.

METHOD

As detailed in ALA's proposal to the U.S. Office of Education, the pilot project was based on the Library Research Clearinghouse, which had been established as a function of ALA's Office for Research and Development before the grant period began. Originally, the creation and maintenance of the Clearinghouse was one of the duties of Mrs. Judith F. Krug, ORD's Research Analyst. Long range plans for the office indicated that when a full complement of staff was hired for the Clearinghouse, the Head would be responsible to the director of the Office for Research and Development. It was hoped that, through this grant, both a Head of the Clearinghouse and an indexer-abstractor could be employed. When this occurred, the Research Analyst would spend approximately 20% of her time on Clearinghouse matters.

Personnel became the overriding problem in carrying out the terms of the grant. Since the ORD staff was not large enough to handle this project, additional people had to be hired. Few persons, however, wish to undertake a new job for six months, especially when relocation may be necessary. It was impossible to specify to job candidates, during most of the project, that the grant would run more than a few additional weeks.

Several people participated in the project. Since personnel problems were acute, it was necessary for ORD's Research Analyst to spend approximately 50% of her time on the Clearinghouse project. The first indexer-abstractor, Mrs. Jean L. Hoffman, was hired in September, 1966. After a short orientation, Mrs. Hoffman took over all indexing and abstracting for the Clearinghouse, searched the files for information to answer specific inquiries, and

spent approximately 20% of her time developing a thesaurus of library terms.

Concurrently, Mrs. Krug was acting as Head of the Clearinghouse. Her primary responsibilities were gathering information for Mrs. Hoffman to abstract and index, and insuring the smooth running of the entire operation. The former responsibility was accomplished by field trips, correspondence, and searches of the literature of librarianship. The latter meant that Mrs. Krug checked all indexing and abstracting, filing, and thesaurus work. She also expanded the acquisitions network and developed preliminary plans for publication.

Due to the uncertainty of continued employment on the project, Mrs. Hoffman was forced to resign in February. It was not until May, when the second extension of the grant through June 30, 1967 had been received, that ALA was able to employ two additional indexer-abstractors. Mrs. Katherine Barber and Mrs. Elizabeth McElroy assumed all duties relating to the indexing and abstracting of projects to be entered into the Clearinghouse files. They also searched the files to answer specific inquiries, worked on the thesaurus of library terms, revamped sections of the Clearinghouse files and updated approximately 350 NOTICE OF RESEARCH PROJECT forms. (The latter is the form used in gathering information for the Clearinghouse.) The task of searching the library literature to find material for the Clearinghouse was also turned over to them.

Supporting secretarial help was provided for all professionals working on the project.

Guidance to the staff in carrying out the terms of the project was provided by the Clearinghouse Advisory Committee, appointed for this purpose. The

Committee was a subcommittee of the Advisory Committee for the ALA Office for Research and Development. This latter committee is charged with "providing for overall policy direction to the Office for Research and Development in carrying out its program activities, and . . . advising the Executive Board on all matters pertaining to research and development in the several fields of library service." Miss S. Janice Kee, then chairman of the ORD Advisory Committee, appointed the following members to the Clearinghouse Committee: Dr. Guy Garrison, Chairman, Miss Eloise Ebert, Mrs. Ella Jean Willson, Dr. Robert M. Hayes, Mr. John G. Lorenz and Mr. John F. Stearns.

In appointing the committee, Miss Kee indicated that the members would be called upon to offer general guidance for the project and to act in a reviewing capacity. The specific duties would entail reviewing the subject and methodological boundaries of the Clearinghouse, and making necessary changes. Specifications for input into the Clearinghouse were to be formalized, and based on a definition of "research" which the Committee would participate in formulating. The Committee was also asked to help plan for the dissemination of the Clearinghouse materials to the library profession. Finally, it was to review and critique the final report of the project.

RESULTS

Throughout the period of the project, the emphasis was on establishing the requirements for an information system. They are:

1. Development of a strong acquisitions network.
2. Identification of criteria for input into the system:
    a) time element of the project
    b) content element of the project
    c) applicability of the results of the project
    d) audience of the information system
    e) language of the report of the project
    f) source of the project
    g) maintenance of the collection of information
3. Development of a thesaurus of terms relative to the system.
4. Establishment of a publication.
5. Development of a dissemination network.

DISCUSSION

Acquisitions Network

An acquisitions network had been established prior to the receipt of the grant from the U.S. Office of Education. During the grant period, the network was strengthened, and attempts were made to establish liaison with information sources not previously contacted. Individual letters were sent to the officers of library associations; college and university libraries with a volume count of 100,000 and above; state library agencies; major public libraries, graduate library schools, including ALA accredited schools and other graduate programs in operation but not yet accredited; and major commercial and institutional research organizations concerned with library and library-related problems. In addition, material for the Clearinghouse was gathered through personal contact and through literature of the library and information sciences field. Finally, publicity notices were placed in the conference envelopes of the ALA Annual Conference in New York, in the summer of 1966, and in similar envelopes at ALA's Midwinter Meeting in January, 1967. In this way, many individuals were reached who either had not seen the request for information sent to the head of the particular institutions, or may not have been affiliated with any of the institutions in the acquisitions network.

Criteria for Input

Before the material acquired for the Clearinghouse was entered into the system, each project was matched against a set of criteria. Both the time

element and the content element of each reported project was considered. The time criteria for the Library Research Clearinghouse included those projects that were in progress, those planned for the future, or those so recently completed that the report of the project was not yet available. During most of the grant period, however, there was a possibility that the ALA Library Research Clearinghouse would become part of the ERIC system. With this in mind, and on the advice of the Advisory Committee, reports of completed research projects were also gathered.

Another time factor was the beginning and completion date of a project. In the original plans for the Library Research Clearinghouse, 1962 had been selected as the cut-off date. Projects ending prior to 1962 were not considered valid input. In practice, two factors were discovered: 1) Certain milestone projects had to be included in order to give a clear picture and a continuity to the rest of the material, and 2) 1962 was too early a date from which to gather information that would be valid in 1967. An information system which strives to maintain a record of current research need only concern itself with that material from the past two or, possibly, three years. Earlier material, for the most part, does not help in creating a picture of the current total research spectrum.

The second criterion on which input for the Clearinghouse was based is one of content. At this point, the definition of "research" becomes important. With the concurrence of the Advisory Committee, staff decided to keep the definition as broad and as flexible as possible. The definition used was "the presentation of factual information in a new light, or the creation of a new body of knowledge." In this context, methodology is relatively unimportant. The projects in the Clearinghouse use every type of methodology,

including survey, questionnaire, diary, experimental, demonstration, historical, and interpretation and analysis.

Projects involving certain types of methodologies, however, were scrutinized more carefully than others. These included historical research, and statistical, bibliographical and biographical compilations. Additional criteria applied to these included: 1) Was any original material used or created, or was the project based solely on secondary sources? Only if original material was used was the project added. 2) Was the report of the research project to be published by a commercial publisher? If so, it was excluded from the Clearinghouse. 3) Would the audience of the ALA Library Research Clearinghouse request, or need, this type of information? (The real question here was if, when needing this type of information, the individuals would come to the Library Research Clearinghouse, or go to the reference librarian at their institution.) If the answer was "yes," the project was added.

Another factor considered was whether the results of the project, as indicated in the summary of the research, would have applicability in a location other than the one in which the project was performed. It was on this criterion that many surveys were excluded from the Clearinghouse files. In many cases, the material being gathered seemed to be of importance only to the institution in which the survey was being conducted.

Another criterion was the audience of the Library Research Clearinghouse, which largely determined the level of sophistication of the projects entered. It was felt that the major part of the audience would be librarians who were not always involved in research. A great deal of highly technical information, therefore, especially from fields related to, but not included in,

librarianship, was excluded. This was especially true in such areas as language analysis, computer programs and programming, mechanical translation, and mathematical logic.

Only English language projects were entered into the files, with a concentration on research being performed in the United States. At the same time, much material was gathered from other English-speaking countries, especially Great Britain. Foreign research was scrutinized carefully to make sure that the results and/or methodology could be used in the United States.

Finally, doctoral dissertations and master theses were examined. Each was considered in relation to the other criteria for input to insure that only high quality work was entered into the system.

After working with the criteria for input over a period of time, it became apparent that the only way to maintain an information system of the type desired was to "weed" the collection of material regularly. In theory, then, once a report was published and this fact came to the attention of the Clearinghouse staff, the materials on this project would be purged from the files. In practice, however, these materials remained in the files, and the publication information was added to the original record.

Thesaurus

Having applied the input criteria to each individual project, those selected for inclusion in the Clearinghouse were then abstracted and indexed. To help in this latter task, a thesaurus of appropriate terms was needed. A start was made toward this thesaurus by picking out uniterms from the actual

research projects, and putting them into a subject heading list. Scope notes and qualifiers were added where needed. The terms were not placed in a hierarchical structure, as this seemed to duplicate work being performed by ERIC Central, U.S. Office of Education.

Publication

One of the most important aspects of an information system is the publication and dissemination of the information in the files. Plans were formulated for a publication, but due to the duration of the project, it was not possible to effect them. The Advisory Committee, as well as the Clearinghouse staff, felt that a publication would be necessary if the Clearinghouse was to be of optimum use to the profession.

Dissemination Network

In an information system, a dissemination network is as much a necessity as is an acquisitions network. If, however, the acquisitions network is solid, it can also be used for dissemination. This was the plan of the Library Research Clearinghouse. It was carried out to the extent that all persons in the acquisitions network were notified that material in the Clearinghouse was available in response to inquiries. During the period of the grant (1 July, 1966 - 30 June, 1967), 62 inquiries were received, despite the fact that no particular publicity campaign had been mounted. The types of persons requesting information from the Clearinghouse ranged from full-time research personnel to students searching for a thesis or dissertation topic. The types of inquiries, likewise, had a rather broad range. Some of them could be answered by looking at just one uniterm in the Clearinghouse files. With others, it was necessary to correlate many

terms, and then to read each project chosen in order to be sure that the Clearinghouse responded with the kind of information requested.

Mechanization

Development of a mechanized retrieval system was considered but it was felt by staff and the Clearinghouse Advisory Committee that the files would be small enough, at least during the grant period, to be handled manually. At the same time, in attempting to develop a thesaurus of library terms, provision was made for future mechanization. With the recent decision for the continuation of the ALA Library Research Clearinghouse as a service distinct from the ERIC system, it is doubtful that mechanization will need to be applied to the system. Since ERIC will be handling published materials that are fugitive and/or ephemeral, ALA sees its role as concentrating solely on research in progress. Since there is, at any one time, only a relatively small number of research projects in progress, the Clearinghouse files will not be large.

CONCLUSIONS

As of June 30, 1967, there were 1,231 projects in the ALA Library Research Clearinghouse. Not all of these meet the criteria of a clearinghouse of current research. It is assumed, however, that at least 800 of them are pertinent, and will remain in the files as the direction of the Clearinghouse is changed.

One of the major implications resulting from this project is the growing evidence of the need for a Clearinghouse service for research in progress. The number of requests for information from the files verifies this, especially since each of the inquiries had to be written on an individual basis. Additional need for the Clearinghouse has been indicated verbally.

Material in the files has been used for a variety of reasons. In the main, however, persons requesting information were interested in developing an awareness of the total research in progress in their specific areas of interest. With the use of both indexes of published material and the Library Research Clearinghouse for current material, it was possible to construct a picture of research at any one time. Having done so, one could then determine the area (or areas) in which he was most interested as well as the ones in which a great deal of research had not been performed. Research personnel also used the Clearinghouse files to base future research efforts on those already in progress, a necessity in developing new projects. Heavy use was made of the files by students who were searching for a topic to use in a master's thesis or a PhD dissertation. It was also used by students

to screen chosen topics, in order to make sure that they were not already being pursued by another individual.

Due to the type of use made of the files of the Clearinghouse, both staff and the Advisory Committee felt that a publication would enhance its value. The duration of the project did not permit time to gather concrete data on this.

The grant from the U.S. Office of Education strengthened the foundation on which the Clearinghouse is based, and helped to determine the future direction of this service at ALA. The acquisitions network will be maintained and expanded. Criteria for input will be distributed to those persons who will be sending material to the ALA Library Research Clearinghouse, so that a first-level selection can be accomplished at the source. The thesaurus of library terms is not particularly pertinent to an ALA Clearinghouse, and will be developed only as far as deemed necessary by ALA and its audience. Finally, a publication will be started, on an informal basis, in order to gather data to justify issuing a formal publication.

Funds were provided to the American Library Association by the U.S. Office of Education to conduct A PILOT PROJECT TO DEVELOP REQUIREMENTS FOR ESTABLISHING AN INFORMATION SYSTEM FOR RESEARCH ACTIVITIES IN THE FIELD OF LIBRARIANSHIP AND INFORMATION SCIENCE for the period July 1, 1966 through June 30, 1967. The project was built on the ALA Library Research Clearinghouse, which was in operation before the grant period began. The Clearinghouse became a project of ALA's Office for Research and Development, but since the ORD staff was not large enough to handle it, additional people were hired. The terms of the grant were carried out under the guidance of the Clearinghouse Advisory Committee, appointed for this purpose.

In order to develop the requirements for an information system, certain objectives were pursued. These included 1) intensifying and expanding the ALA Library Research Clearinghouse, and concentrating on research-in-progress information in library and library-related activities; 2) providing services in the Clearinghouse to acquire, process, store, retrieve and disseminate materials and information on library and library-related research-in-progress activities; 3) assisting in the building of an educational thesaurus; and 4) providing means to test and evaluate the effectiveness of the Clearinghouse operation. Through these objectives, the following requirements for an information system were determined: 1) development of a strong acquisitions network; 2) criteria for input into the system; 3) development of a thesaurus of terms relative to the system; 4) establishment and distribution of a publication; and 5) development of a dissemination network. Of these, it appears that the criteria for input into the system determines, to the

greatest extent, its effectiveness. Certain criteria, such as the time content elements of the research, the applicability of the results of the project and the audience for which the information system is developed are most important. Other criteria, however, such as the language of the projects entered, and the country in which the projects are performed are necessary for delimiting the broad range of possible information for the system. Finally, it is necessary, in determining requirements for an information system, to decide if the system is to be a comprehensive one, including reports on completed research, or a current one, concentrating on research in progress. In the case of ALA, an information system concentrating on research in progress was deemed most desirable.